

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number
WO 2005/082247 A1

(51) International Patent Classification⁷: **A61B 5/06**

(21) International Application Number:
PCT/IB2005/050530

(22) International Filing Date: 11 February 2005 (11.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
04100639.6 18 February 2004 (18.02.2004) EP

(71) Applicant (for DE only): **PHILIPS INTELLECTUAL
PROPERTY & STANDARDS GMBH** [DE/DE]; Stein-
damm 94, 20099 Hamburg (DE).

(71) Applicant (for all designated States except DE, US):
KONINKLIJKE PHILIPS ELECTRONICS N. V.
[NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven
(NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KRÜGER, Sascha**
[DE/DE]; c/o Philips Intellectual Property & Standards
GmbH, Weissshausstr. 2, 52066 Aachen (DE). **WIS-
CHMANN, Hans-Aloys** [DE/DE]; c/o Philips Intellectual

Property & Standards GmbH, Weissshausstr. 2, 52066
Aachen (DE). **TIMINGER, Holger** [DE/DE]; c/o Philips
Intellectual Property & Standards GmbH, Weissshausstr.
2, 52066 Aachen (DE). **SABCZYNSKI, Jörg** [DE/DE];
c/o Philips Intellectual Property & Standards GmbH,
Weissshausstr. 2, 52066 Aachen (DE). **BORGERT, Jörn**
[DE/DE]; c/o Philips Intellectual Property & Standards
GmbH, Weissshausstr. 2, 52066 Aachen (DE).

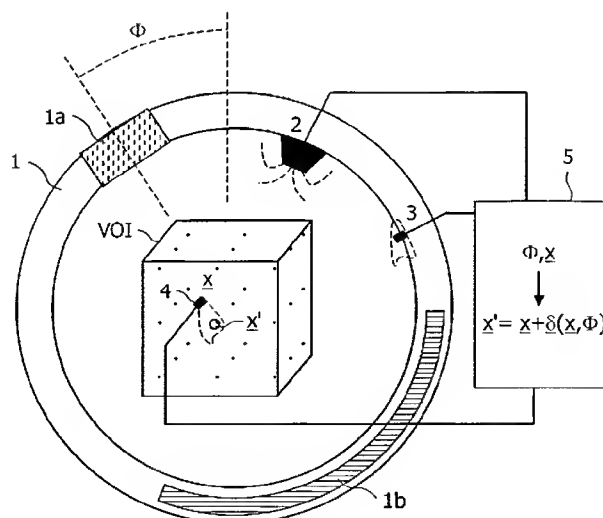
(74) Agents: **VOLMER, Georg** et al.; Philips Intellectual
Property & Standards GmbH, Weissshausstr. 2, 52066
Aachen (DE).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: CORRECTION OF MEASURED VALUES FOR A MAGNETIC LOCALIZATION DEVICE



(57) Abstract: The invention relates to a device and a method for correction of the position (x) of a field sensor (4) measured by means of a magnetic localization device. External field distortions, such as caused for example by the rotating components (1a, 1b) of a computer tomograph (1), are then determined with the help of reference sensor (3) placed at a known position. It is possible to deduce, for example, the current angle of rotation (Φ) of the computer tomograph (1) from the measurement signals of the reference sensor (3). Based on an empirically determined correction ($\delta(x, \Phi)$), the uncorrected determined positions (x) of the field sensor (4) can then be converted to corrected positions (x') in relation to the field distortions. The field generator (2) and the reference sensor (3) are preferably fastened to the gantry in order to eliminate the dependency of the field distortions on an inclination of the gantry.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.